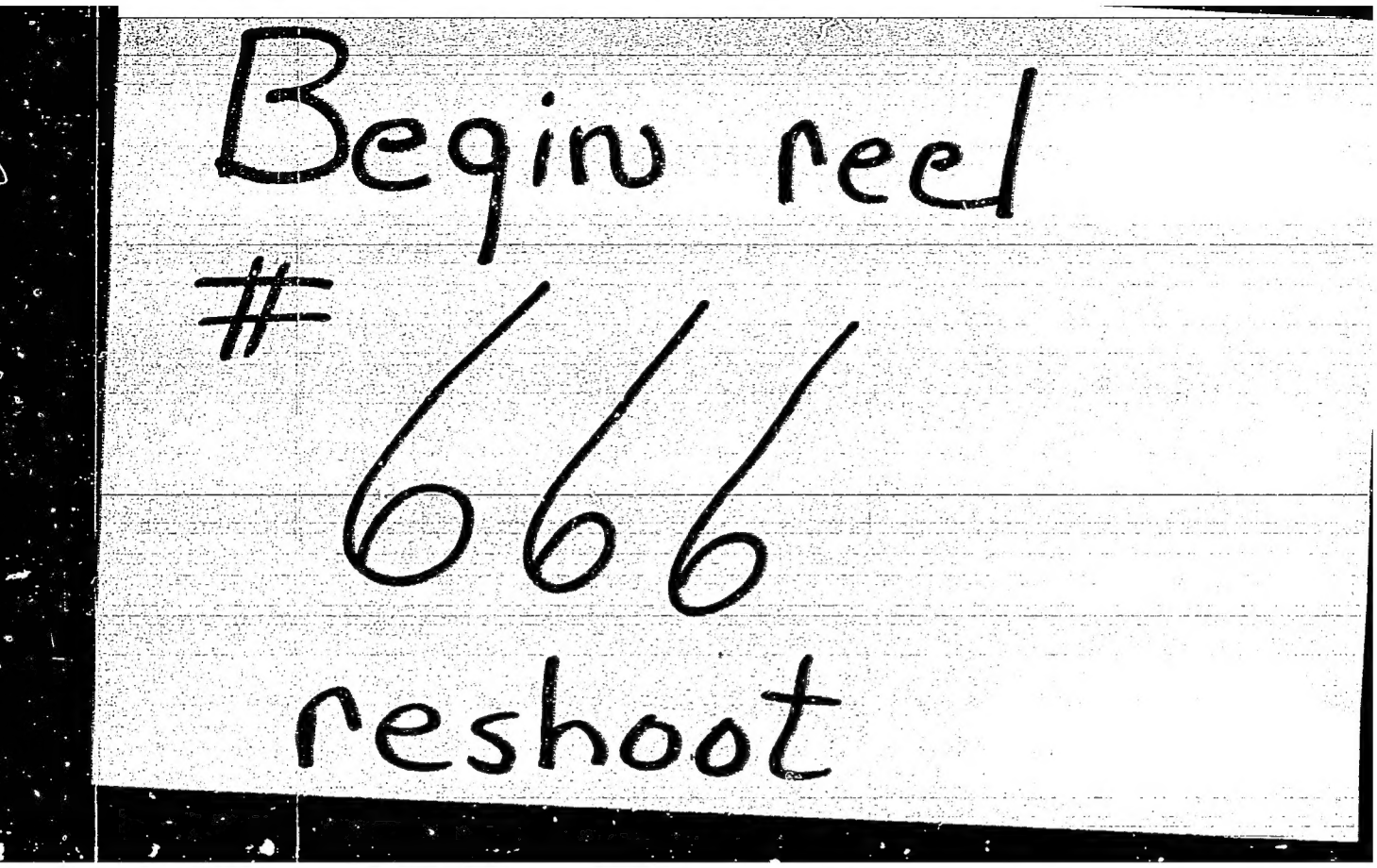


SMIRNOV, B.N., inzh.; Ass, V.Ye., arkhitektor, laureat Stalinskoy premii;
VOZHDAYEV, V.S., inzh.

Large-panel houses built of construction elements made on Conveying units. Zhil.stroi. no.4/5:22-24 '58. (MIRA 12:6)
(Moscow--Apartment houses)
(Concrete slabs)

ACC NR: AP6033446 SOURCE CODE: UR/0413/66/000/018/0021/0021

INVENTOR: Proskuryakov, G. V.; Vozhdayev, Ye. A.; Terent'yev, A. A.; Kulikova, L. P.

ORG: None

TITLE: A method for bending sectional profiles from sheet stock. Class 7, No. 185827

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 21

TOPIC TAGS: sheet metal, metal bending, bending machine

ABSTRACT: This Author's Certificate introduces a method for bending sectional profiles from sheet stock. Cross sections with internal bending radii close to zero are produced from material with low ductility by additional bending with the application of compressive force to shelves on the prebent profile along lines which are normal and tangent to the central axis of the cross section.

SUB CODE: 11, 13/ SUBM DATE: 21Oct63

Card 1/1 UDC: 621.981.1

L 51123-65 EWT(1)/EWP(m)/EWT(m)/EWA(d)/EWP(t)/FCS(k)/EWP(b)/EWA(1) Pd-1
ACCESSION NR: AP5011325 JD UR/0258/65/001/002/0341/0344
533.6.011.34

AUTHOR: Vozhdayev, Ye. S. (Moscow)

TITLE: One application of the generalized Bio-Savart relation

SOURCE: Inzhenernyy zhurnal, v. 5, no. 2, 1965, 341-344

TOPIC TAGS: helicopter lift prop, inductive velocity field, Bio-Savart relation, air compressibility, subsonic flow, aerodynamic calculation

ABSTRACT: The stated problem concerns the stationary field of inductive velocities of a helicopter lift prop in a subsonic compressible flow. The author uses a generalization of the Bio-Savart relation to [illegible] physical space

1/2 ... second ... the first approximation but

L 51023-65
ACCESSION NR: AP5011325

should be considered in aerodynamic calculations at the second approximation level. "The author is indebted to L. A. Simonov for useful advice, as well as to P. I. Radchenko and V. M. Kalyavkin for help with the calculations." Orig. art. has: 2 figures and 16 formulas.

ASSOCIATION: None

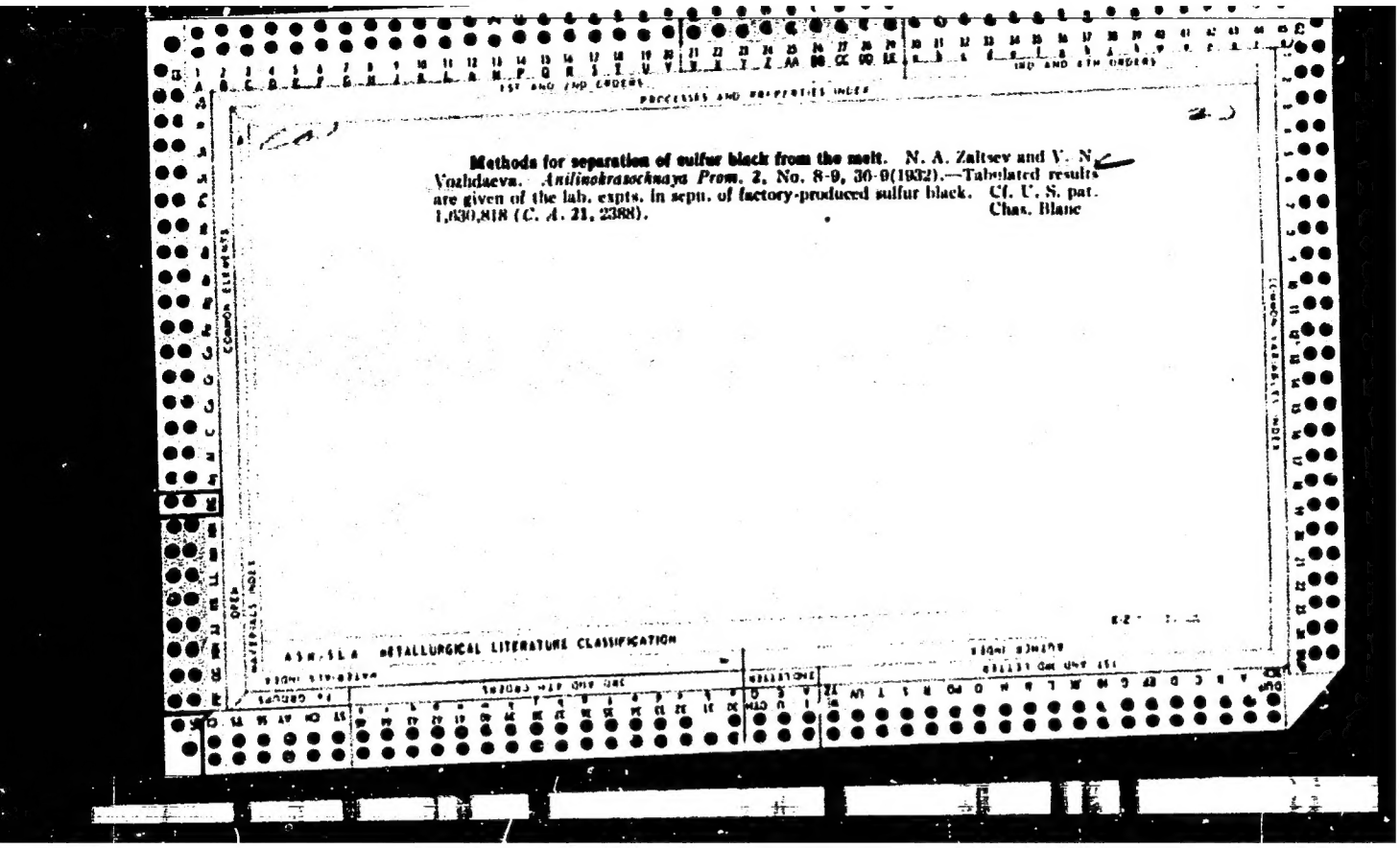
SUBMITTED: 02Jul64

ENCL: 00 SUB CODE: AC, ME

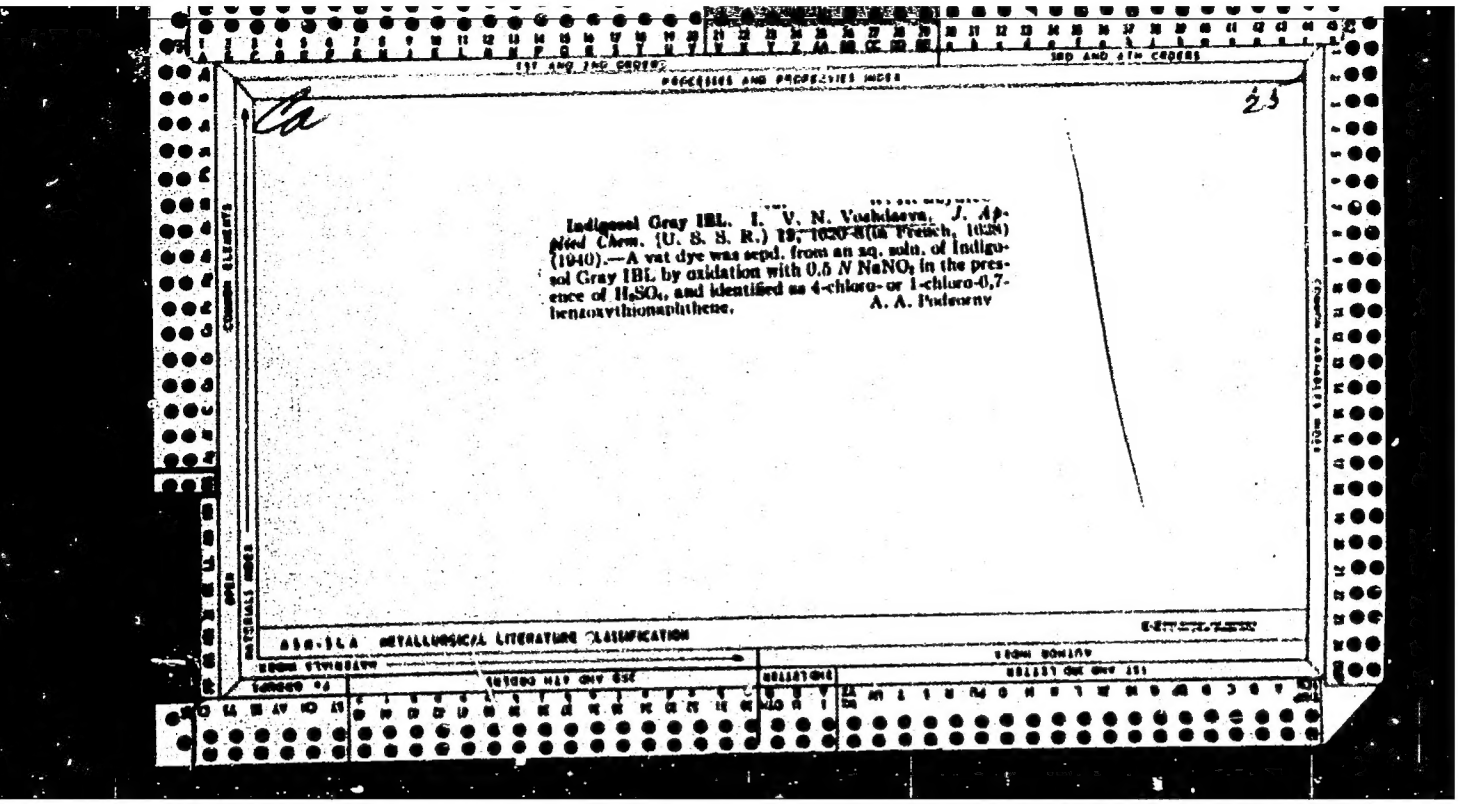
NO REF SOV: 002

OTHER: 000

Card 2/2

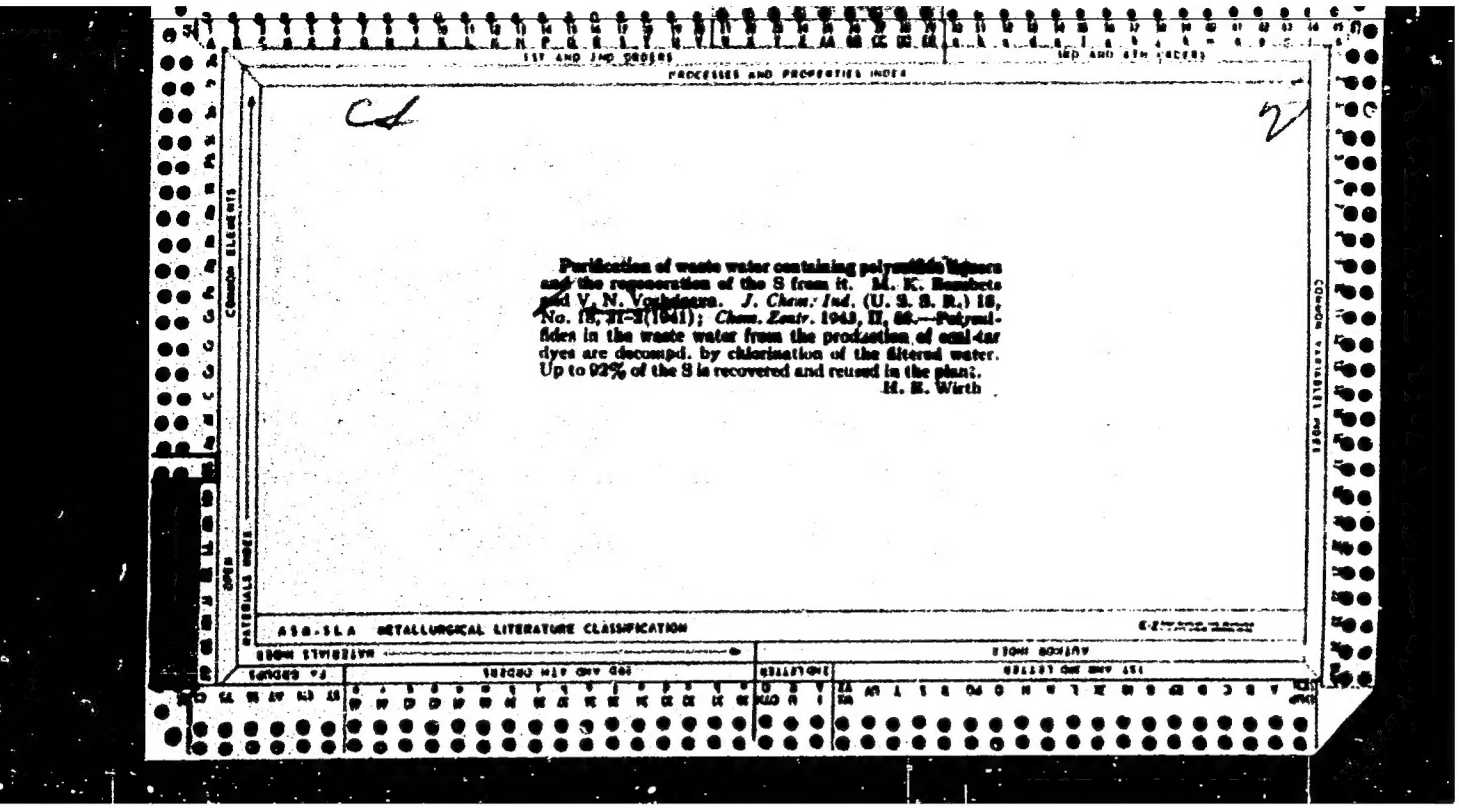


Methods for separation of sulfur black from the melt. N. A. Zaitsev and V. N. Vozhdaeva. *Anilinokrasochnaya Prom.* 2, No. 8-9, 30-9(1932).—Tabulated results are given of the lab. expts. in sepn. of factory-produced sulfur black. Cf. U. S. pat. 1,630,818 (*C. A.* 21, 2388). Chas. Blanc



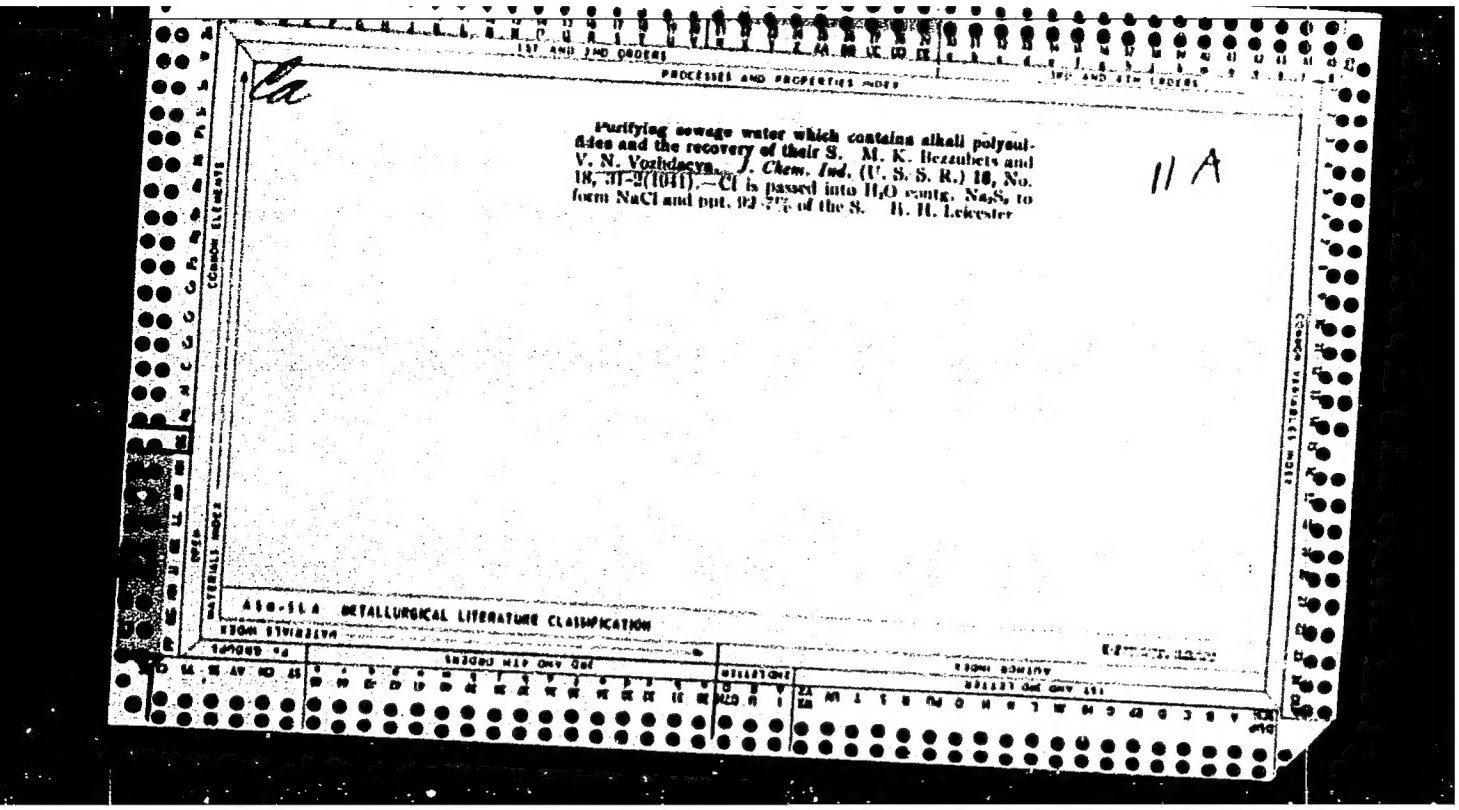
Indigosol Gray IBL. I. V. N. Vashkova. *J. Applied Chem.* (U. S. S. R.) 13, 1620-8 (in French, 1938) (1940).—A vat dye was sepd. from an aq. soln. of Indigosol Gray IBL by oxidation with 0.5 *N* $NaNO_2$ in the presence of H_2SO_4, and identified as 4-chloro- or 1-chloro-0,7-benzoxythionaphthene.

A. A. Padawny



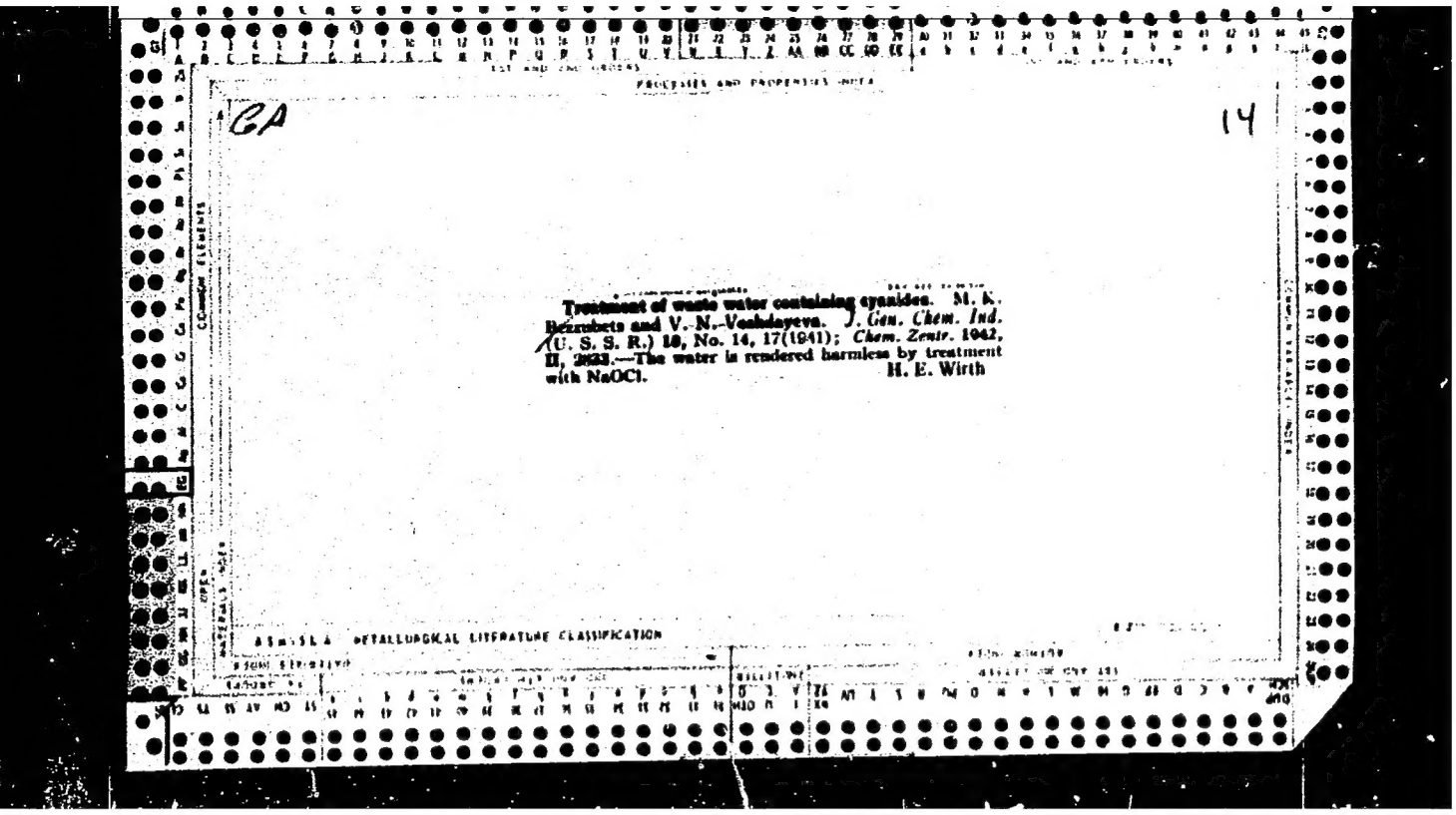
Purification of waste water containing polysulfide liquors and the regeneration of the S from it. M. K. Rambets and V. N. Vorobieva. *J. Chem. Ind.* (U. S. S. R.) 18, No. 12, 31-2(1941); *Chem. Zentr.* 1943, II, 66.—Polysulfides in the waste water from the production of sulfur dyes are decompd. by chlorination of the filtered water. Up to 92% of the S is recovered and reused in the plant.
H. E. Wirth

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Purifying sewage water which contains alkali polysulfides and the recovery of their S. M. K. Bezzubets and V. N. Vozhdaeva. *J. Chem. Ind.* (U. S. S. R.) **18**, No. 10, 31-2(1941).—Cl is passed into H_2O contg. Na_2S_x to form NaCl and ppt. 92-5% of the S. B. H. Leicester

11 A



CA

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Treatment of waste water containing cyanides. M. K. Bezrukets and V. N. Vashdayeva. *J. Gen. Chem. Ind.* (U. S. S. R.) **10**, No. 14, 17(1941); *Chem. Zentr.* 1942, II, 2033.—The water is rendered harmless by treatment with NaOCl.
H. E. Wirth

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VOZHDAYEV, Ye.S. (Moskva)

An application of the generalized Biot-Savard law. Inzh.zhur. 5 no.2:341-344 '65. (MIRA 18:4)

VOZHENIN, I. N.

N. N. Merkliakova, Z. M. Alekseyeva, In. N. Vozhenin, and V. N. Detinko, "Temperature stabilization of self-oscillators using transistors." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep 58.

The question of the reasons for the frequency and amplitude drift of transistor self-oscillators is analyzed and a simple method is proposed for thermo-stabilization in a wide temperature range.

30470

S/139/61/000/005/006/014
E036/E335

9,4310

AUTHORS: Blinov, G.A. and Vozhenin, I.N.

TITLE: Some problems of the electronics of alloyed transistors

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 5, 1961, 55 - 64

TEXT: The article is an account of the quantitative comparison of alloyed-transistor theory with the experimental results. It is shown that the condition of charge neutrality in the base holds in real transistors and that, in contrast to earlier theories, the influence of the longitudinal electric field is negligible at all injection levels. Furthermore, the empirical dependence of the effective lifetime on the injection level is found. A short review of the literature on transistor theory is given. In approximations made in earlier small-signal theories, it is assumed that the concentration of injected carriers in the base is small compared with the majority of carriers; this assumption is rarely justified in actual devices. Experimental work has been reported showing

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Some problems of ....

qualitative agreement with the earlier theories, any discrepancies being attributed to differences between the actual transistor and the ideal device. The present work, however, shows that there are definite contradictions between these theoretical results and experiments at large injection levels for several types of transistor. The input resistances in common-base and common-emitter connections as a function of current were measured to study the boundary conditions at the emitter-base junction. Using the measured low-frequency value of r'_b, good agreement between theory and experiment was found for input resistance as a function of injection level (z). To study the influence of the longitudinal field the cut-off frequency (ω_α) and effective diffusion constant were measured as a function of the collector current by several methods. A definition of ω_α is used which allows for the higher injection levels exhibited at even relatively low collector currents. This ω_α must then be related to the cut-off frequency (ω'_α) of an actual transistor

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by allowing for junction capacitances and base-resistance, etc. For $z \ll 1$ the change of ω_α is due to the emitter-junction barrier capacitance and the variation for $z \gg 1$ is related to the base-resistance in the collector circuit r_b'' and to the diffusion and barrier capacitance of the collector junction. The apparent reduction of ω_α at small injection levels can be explained by errors in determining the emitter junction barrier capacitance. The reduction at high injection levels is due to a transverse field arising from the base current and to curvature of the emitter surface, etc. The apparent increase of ω_α with injection level reported by other workers is due to insufficiently complete account being taken of the differences between the actual transistor and the theoretical model. Also, the reduction of the input diffusion capacitance at high injection levels is due, not to the longitudinal field, but to a change in the emitter boundary conditions. To clarify the effect of junction curvature and radial potential drops, the effective base width and diffusion constant (D^*) were measured

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as a function of current. The calculated value of D^* was constant (40.5 - 45 cm^2/sec) for injection levels of 0 to 5-7. It was found that the current gain α_{cb} as a function of current can be described by the equation:

4

$$\alpha_{cb} = \alpha_{cb(z=1)}[1 + \sigma \lg z] \qquad (16)$$

for $0 < z < 1$, where σ is constant for a given transistor. This increase of α_{cb} is supposed to be due to an increase of the effective lifetime τ. Good agreement is found between the plot of α_{cb} and of τ against current, τ being measured on the device. As the current is further increased, quantitative agreement with theory is possible, the fall in α_{cb} being due to reduced emitter efficiency. S. Ryabinkin is mentioned in the article for his contributions in this field.

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30470
S/139/61/000/005/006/014
E036/E335

Some problems of ....

There are 8 figures and 15 references: 3 Soviet-bloc and 12 non-Soviet-bloc. The four latest English-language references mentioned are: Ref. 10 - N. Fletcher, Proc. IRE, 44, 10, 1475, 1956; Ref. 13 - F. Hyde, Proc. IRE, 19, 45, 1958; Ref. 14 - N. Meyer, J. Electr. and Contr., 4, 1958; Ref. 11 - N. Fletcher - Proc. IRE, 43, 5, 552, 1955.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva (Siberian Physicotechnical Institute of Tomsk State University im. V.V. Kuybyshev)

SUBMITTED: August 3, 1960

Card 5/5

S/139/61/000/006/001/023
E032/E514

9.4310 (1139,1143,1150)

AUTHOR: Vozhenin, I.N.

TITLE: Calculation of the output current of fused semiconductor triodes for arbitrary signals across the junction

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.6, 1961, 14-21

TEXT: In a previous paper the author and G. A. Blinor (Ref.1: Izv.vuzov, Fizika, No.5, 55, 1961) reported experimental studies of semiconductor triodes. It is concluded from that work that for an arbitrary injection level the dependence of the collector current on the voltage drop across the junctions can be established by solving the equation

$$\frac{dp}{dt} = -\frac{p - p_5}{\tau_p^{*}} + D_p \frac{\partial^2 p}{\partial x^2} \qquad (1)$$

subject to the boundary conditions

$$p_2 = p_6 \exp(\mu V_k) \quad \text{(collector contact)} \qquad (4)$$

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and $$n_1 p_1 = (N_d + p_1)p_1 = n_i^2 \exp(\mu V_э) \quad (5)$$

In the above expressions D_p is the hole diffusion coefficient, τ_p^x is the lifetime of holes in the base, including surface recombination effects, $p_б$ is the concentration of holes in the base, $\mu = q/kT$, q is the electronic charge, x is the coordinate measured from the emitter to the collector, N_d is the concentration of donor atoms, the subscript э refers to the emitter and p_1 is given by

$$p_1 = p_б \exp(\mu V_э) \quad \text{(emitter contact)} \quad (3)$$

Eq.(1), which gives the behaviour of the minority carriers in the base, is solved on the linear approximation subject to the non-linear boundary conditions given by Eqs.(4) and (5). This will hold for small injection levels when the base of the triode can be divided into an electrically neutral layer, and emitter and collector space-charge regions. The effect of the field on the behaviour of the minority carriers is then small compared with the

effect of diffusion and recombination. It is shown that if the triode input current is given by

$$I_{вх}=\frac{J_{0вх}}{2}+\sum_{n=1}^{\infty}J_{вхn}\sin(n\omega t-\varphi_n), \qquad \text{"A"}$$

then the solution of the above equations leads to the following expression for the output current

$$I_a(t)=\frac{a_0 J_{вх0}}{2}+\sum J_{вхn}a_n\sin(n\omega t-\varphi_n-\eta_n)-$$

$$-I_{к0}e^{-\mu E_{к0}}\sum_{n=0}^{\infty}I_n(\mu a)\left[\operatorname{Re}\frac{W_2 s_n}{\operatorname{th}W_2 s_n}\cos n\omega t+\operatorname{Im}\frac{W_2 s_n}{\operatorname{th}W_2 s_n}\sin n\omega t\right]- \qquad (40)$$

$$-\frac{\nu_1 d_0 a_0 J_{вх0}}{2W_0}\left[\operatorname{Re}s_1 W_0\operatorname{th}s_1 W_0\cos\omega t+\operatorname{Im}s_1 W_0\operatorname{th}s_1 W_0\sin\omega t\right];$$

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where $\frac{d_o \alpha_o J_{BXO}}{2E_{OK} W_O}$ Re $s_1 W_o$th $s_1 W_o = g_{kk}$ is the active admittance of the collector junction and $\frac{d_o \alpha_o J_{BXO}}{2\omega E_{OK} W_o}$ Im $s_1 W_o$th $s_1 W_o = C_{Dk}$ is the diffusion capacitance of the collector junction (both with open-circuited input). Analysis of Eq.(40) shows that the collector current consists of the emitter current, whose harmonics are attenuated by a factor of α_n and shifted by an angle η_n (first sum), the collector diode current due to positive collector-base voltage pulses (second sum), and a collector-junction conduction current due to the change in the thickness of the junction. In the derivation of Eq.(40) the distributed base resistance was neglected. There are 1 figure and 1 Soviet-bloc reference.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuybysheva
(Siberian Physico-Technical Institute of the Tomsk State University imeni V. V. Kuybyshev)

SUBMITTED: October 20, 1960

VOZHENIN, I.N.

Calculation of the output current of alloyed semiconductors at arbitrary magnitudes and forms of signals in junctions. Izv. vys. uchob. zav.; fiz no.6:14-21 '61. (MIRA 15:1)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.
(Junction transistors)

VOZHENNIKOV, M.

Manufacturing pressure pipes by hydraulic pressing. Na stroi. Ros. no.5:25-26 My '61. (MIRA 14:7)

1. Glavnyy inzhener Chesnokovskogo zavoda zhelezobetonnykh izdeliy.

(Pipe, Concrete)

YANUSHEVICH, A.I., otv. red.; DOLGUSHIN, I.A., zam. otv. red.; LUZHIN, B.L., red.; PALIY, V.F., red.; AYZIN, B.M., red.; VOZHEYKO, I.V., red.; SUVOROVA, R.I., red.; ROROKINA, Z.P., tekhn. red.

[Animal acclimatization in the U.S.S.R.] Akklimatizatsiia zhivotnykh v SSSR; materialy. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1963. 369 p. (MIRA 16:7)

1. Konferentsiya po akklimatizatsii zhivotnykh v SSSR, Frunze, 1963. 2. Institut zoologii AN Kirg.SSR (for Yanushevich, Ayzin, Paliy).

(Acclimatization)

LEVIT, A.V. kand.biologicheskikh nauk, GALUZO, I.G., otv.red.; USHAKOVA, G.V., kand.biologicheskikh nauk, red.; VOZHEYKO, I.V., red.; KOROKINA, E.P. tekhn.red.

[Mites infesting fowl and their control] Ptich'i kleshchi i bor'ba s nimi. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1954. 29 p. (MIRA 11:9)

1. Deyatvitel'nyy chlen Akademii nauk Kazakhskoi SSR (for Galuzo).
(Poultry--Diseases and pests)

VOZHEYKO, I.V.

POLOSUKHINA, T.Ya.; BEKETAYEV, A.M., kandidat meditsinskikh nauk, redaktor; VOZHEYKO, I.V., redaktor; BOROKINA, Z.P., tekhnicheskiy redaktor.

[Papers on the physiology of cholesterin metabolism] Materialy po fiziologii kholesterinovogo obmena. Alma-Ata, Izd-vo Akademii nauk Kazakhskoi SSR, 1955. 146 p. (MLRA 9:1)
(Cholesterol)

KOZLOVA, K.I.; TIKHOV, G.A., redaktor; VOZHEYKO, I.V., redaktor; ALFEROVA, P.F., tekhnicheskiy redaktor.

[Spectrophotometry of plants of various climatic zones in reflected rays] Spektrofotometriia rastenii raznykh klimaticheskikh zon v otrazhennykh luchakh. Alma-Ata, Izd-vo Akademii nauk Kazakhskoi SSR, 1955. 206 p. (MLRA 8:12)

L. Chlen-korrespondent akademii nauk SSSR (for Tikhov)
(Spectrophotometry) (Botany--Physiology)

TIKHOV, Gavriil Adrianovich; USANOVICH, M.I.; VOZHENYKO, I.V., redaktor; ROROKINA, Z.P., tekhnicheskiy redaktor.

[Principal works; in five volumes] Osnovnye trudy; v piati tomakh. Alma-Ata Izd-vo Akademii nauk Kazakhskoi SSR. Vol.2 [Astrophysics and atmospheric optics (1940-1945)]Astrofizika i atmosfernaia optika (1910-1945). 1955. 381 p. (MLRA 9:4)

1.Chlen-korrespondent Akademii nauk SSSR, deystvitel'nyy chlen AN KazSSR (for Tikhov).2.Chlen-korrespondent AN KazSSR (for Usanovich). (Astrophysics) (Astronomical photography)

MAMYTOV, A.M., akademik; MAKARENKO, V.A., mlad. nauchnyy sotr.; SUKHACHEV, A.G., mlad. nauchnyy sotr.; BOZGUNCHIYEV, M., mladshiy nauchnyy sotr.; OBZOROV, A., mladshiy nauchn. sotr.; VOZHEYKO, I.V., red.; ANOKHINA, M.G., tekhn. red.

[Practices in field station research on Alpine soils; as exemplified by the Ak-Say Field Station]Opyt statsionarnogo izucheniia vysokogornykh pochv; na primere Ak-Saiskogo statsionara. [By]A.M.Mamytov i dr. Frunze, Izd-vo Akad. nauk Kirgizskoi SSR, 1962. 268 p. (MIRA 16:3)

1. Akademiya nauk Kirgizskoy SSR (for Mamytov).
(Ak-Say Valley (Kirghizistan))—Soils)

IVSHIN, Nikolay Karpovich, kandidat geologo-mineralogicheskikh nauk; BORUKAYEV, R.A., otvetstvennyy redaktor; VOZHENKO, I.V., redaktor; KALISTRATOVA, A.Ye., tekhnicheskiy redaktor

[Upper Cambrian trilobites of Kazakhstan] Verkhnekembriiskie trilobity Kazakhstana. Alma-Ata, Izd-vo Akademii nauk Kazakhskoi SSR. Pt.1. [Kuyandin fauna horizon of the Olenty-Shiderty interfluve] Kuiandinskii faunisticheskii gorizont mezhdurech'ia Olenty-Shiderty. 1956. 119 p. (MLRA 9:7)

1. Deystvitel'nyy chlen Akademii nauk Kazakhskoy SSR (for Borukayev)
(Kazakhstan--Trilobites)

GONCHAROV, Aleksandr Ivanovich, nauchnyy sotrudnik; VOZHEYKO, V.I., red.; BEYSHENOV, A., tekhn.red.

[Pond fish culture in Kirghizia] Prudovoe rybovodstvo v Kirgizii. Frunze, Kirgizskoe gos.izd-vo, 1959. 91 p. (MIRA 14:1)

1. Akademiya nauk Kirgizskoy SSR (for Goncharov).
(Kirghizistan--Fish culture)

VOZHDA, Yan [Vozda, Jan] (Cheskhoslovatskaya Narodnaya Respublika)

Work of Czechoslovak biology teachers in promoting polytechnical education. Biol. v shkole no.1:74-76 Ja-F '58. (MIRA 11:1)
(Czechoslovakia--Agriculture--Study and teaching)

PETRENKO, P.V.; EL'KIN, I.L.; KAZAKOV, S.S.; VOZHIK, D.L.; DENISOV, V.V.; PUCHKOV, V.I.; BOGUTSKIY, N.V.; SAVEL'YEV, I.P.; KOLENTSEV, M.T.; MERKULOV, N.Ya.; VERKLOV, V.A.; OVSYANNIKOV, P.A.; SOSNOV, V.D., otv. red.; CHIZHOVA, V.V., otv.red.; ZHUKOVA, A.P., red.; LEVINA, T.I., red.; PROVINA, N.D., tekhn. red.; OVSEYENKO, V.G., tekhn. red.

[Practice of using cutterloaders]Opyt ispol'zovaniia ochistnykh kombainov; sbornik statei. Moskva, 1962. 102 p. (MIRA 16:2)

1. TSentral'nyy institut tekhnicheskoy informatsii ugol'noy promyshlennosti.

(Coal mining machinery)

Vozhik, L. I.

L 51107-65 EWP(k)/EWT(d)/EWT(m)/EWP(h)/EWP(b)/EWA(d)/EWP(l)/EWP(v)/EWP(t) Pc-4
JT

AM5012940 BOOK EXPLOITATION S/

Levinson, Ye. M.; Lev, V. S. 64

Electrospark-machining equipment (Elektroerozionnoye oborudovaniye) Moscow-Leningrad, Izd-vo "Mashinostroyeniye", 1965. 295 p. illus., biblio. 4000 copies printed. Reviewer: Docent I. G. Kosmachev; Editors of the publishing house: Engineer L. I. Vozhik, G. N. Kurepina; Technical editor: G. V. Speranskaya; Proofreader: N. S. Dvoretskaya

TOPIC TAGS: electrospark machining, electrospark machine tools

PURPOSE AND COVERAGE: This book was intended for engineering and technical personnel and for designers and technologists at machine-building enterprises. The construction of electrospark machine tools for different types of machining

AM5012940

Lazarenko. The authors thank the collective at the experimental and design section of electrospark machining at the Leningradskiy Karbyuratornyy Zavod im. V. V. Kuybysheva for assistance in the preparation of the book.

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L 51476-65

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SUB CODE: MM SUBMITTED: 30ec64 NR REF SOV: 052

OTHER: 002

Card 3/3

SHARANETS, Eduard [Szaraniec, Edward]; VOZHITSKI, Yezhi [Woznicki, Jerzy]

Electron membrane for geoelectric modeling. Acta geophys Pol 12 no.4:257-258 '64.

1. State Agency for Geophysical Surveying, Krakow(for Szaraniec).
2. School of Mining and Metallurgy, Krakow (for Woznicki).

FROMBERG, M.B.; PEIRASHKO, Yu.K.; VOZHOVA, V.D.; ANDRIANOV, K.A.

Exchange decomposition reaction between alkyl (aryl) trisodium-hydroxysilanes and methylphenyldichlorosilane. Izv. AN SSSR. Ser. khim. no.4:660-665 '65. (MIRA 18:5)

1. Elektrotekhnicheskiy institut im. V.I.Lenina.

L 54445-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 WW/RM
ACCESSION NR: AP5012450 UR/0062/65/000/004/0660/0665
546.287

AUTHORS: Fromberg, M. B.; Petrashko, Y. K.; Vozhova, V. D.; Andrianov, K. A.

TITLE: Double decomposition of alkyl(aryl)trisodium oxysilanes and methylphenyl dichlorosilane

SOURCE: AN SSSR, Izvestiya, Seriya khimicheskaya, no. 4, 1965, 660-665

TOPIC TAGS: silane, IR absorption spectrum, polymerization, polycondensation, sodium compound

ABSTRACT: The double decomposition of trisodium salts of alkyl(aryl) silantriols and methylphenyl dichlorosilane was studied. In order to use the reaction for obtaining trifunctional splitting of oligomers with functional groups at the ends of the branches, the synthesis was carried out with 1 mole of alkyl(aryl) trisodium oxysilane for 3 moles of methylphenyl dichlorosilane. Sodium salts obtained by treating alkyl(aryl)polysiloxanes with an alcohol solution of metal sodium were used. The double decomposition reaction was carried out below 40° with gradual introduction into a solution of methylphenyl dichlorosilane of a suspension of the trisodium salt in toluene. Analysis of the resulting products

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shows them to contain out an insignificant amount of functional groups. The chlorine content was but 0.1% as against an expected 17.17%, on the assumption of the course the reaction would follow. Only traces of the hydroxyl group were detected after treatment with water. These data indicate that the double decomposition does not follow the expected pattern, but that it is apparently accompanied by hydrolytic processes that lead to the formation of cyclic compounds of complex structure. This view is supported by the presence of crystallization water in alkyl(aryl) silantriols. For the double decomposition reactions, sodium salts of methyl, ethyl, and phenyl silantriols were used. These yielded 1,7-dimethyl-3,5,9,11,14,16-hexamethylhexaphenyl bicyclo (5,5,5) octasiloxane; 1,7-diethyl-3,5,9,11,14,16-hexamethylhexaphenyl bicyclo (5,5,5) octasiloxane; 1,7-diphenyl-3,5,9,11,16-hexamethylhexaphenyl bicyclo (5,5,5) octasiloxane.

[illegible]

structure, and properties of the compounds are tabulated. Infrared spectra of all compounds exhibit an absorption band in the 1080-1090 cm^{-1} region, corresponding to vibration of the Si-O bond in eight-member rings. No characteristic band for Si-OH was detected. Supplementary experiments on catalytic polymerization and thermal polycondensation demonstrated that the compounds are polymerized by means of 1% NaOH at 200C and that thermal polycondensation, which was

Card 2/3

L 54445-65
ACCESSION NR: AP5012450

effected at 220-250C during long periods (up to 30 hours), does not produce changes in properties or composition of the synthesized compounds. These data support the view that the compounds have cyclic structure. Orig. art. has: 2 figures, 1 table, and 2 formulas.

ASSOCIATION: Elektrotekhnicheskiy institut im. V. I. Lenina (Electrical Engineering Institute)

SUBMITTED: 17Apr63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 003 OTHER: 002

Card 3/3

VOZHZHOVA, A.I., kand.med.nauk; SEMENOV, A.A.

Training launch. Voen.med.zhur. no.3:25-26 '59. (MIRA 12:6)

(ARMED FORCES PERSONNEL
cutter personnel (Rus))

VOZHZHOVA, A.I., kand.med.nauk; MAYBORODA, A.Ya., inzh.-kapitan 2 ranga

New experimental data on protecting the ear from noise by diesel engines. Voen.-med.zhur. no.6:24-27 Je '59. (MIRA 12:9)

(NOISE, prev. & control
in operation of cutters with diesel engines (Rus))

VOZHZHOVA, Antonina Ivanovna; OKUNEV, Roal'd Abramovich;
VAYNSHTEYN, A.M., red.

[Seasickness and its control] Ukachivanie i bor'ba s nim.
Leningrad, Meditsina, 1964. 166 p. (MIRA 17:6)

LEBEDEVA, A.F.; VOZHZHOVA, A.I.

Effect of general vibration and noise on some functions of the motor analysor. Trudy LSGMI 75:85-90 '63. (MIRA 17:4)

1. Kafedra gigiyeny truda s klinikoy professional'nykh zabolevaniy (zav. kafedroy - prof. Ye.TS. Andreyeva-Galanina) Leningradskogo sanitarno gigiyenicheskogo meditsinskogo instituta.

VOZHZHOVA, A. I.

"The Changing Mobility of the Basic Neural Processes in the Auditory Analyzer of Motorists Under the Effect of Intensive Noise".

Voyenno Meditsinskiy Zhurnal, No. 4, 1962

VOZHZHOVA, A.I.; LEBEDEVA, A.F.

Effect of vibration and noise on the functional condition of the motor analyzer. Gig.i san. 26 no.1:102-111 Ja '61. (MIRA 14:6)
(VIBRATION--PHYSIOLOGICAL EFFECT)
(NOISE--PHYSIOLOGICAL EFFECT) (MOVEMENT DISORDERS)

VOZHZHOVA, A.I.; SAPOV, I.A.(Leningrad)

Methods for investigating physiological changes in the human body caused by noise. Gig. truda i prof. zab. 4 no.5:36-40 My '60.
(MIRA 13:9)

(NOISE—PHYSIOLOGICAL EFFECT)

VOZHZHOVA, A.I.

Tremorography. Vop. psikh. nevr. no.10:366-370 '64.
(MIRA 18:12)

VOZHZHOVA, A.I.

25989 Vozhzhova, A.I. Novyye Eksperimental'nyye Dannyye Po Profilaktike I Terapii Morskoy Bolezni. Voyen.-Med. Zhurnal, 1948, No. 6, S. 18-23

SO: Letopis' Zhurnal Statey, No. 30, Moscow 1948

VOZHZHOVA, A.I.

A new device and method for determining algesia in a human being. Vop. psikh. i nevr. no.9:518-521 '62.
(MIRA 17:1)

S/165/60/000/004/005/012
A104/A129

AUTHOR: Vozhzhova, N.

TITLE: Distribution of effective velocities in the West Turkmenian Depression

PERIODICAL: Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 4, 1960, 40-45

TEXT: The results of seismic prospecting carried out by the method of reflected waves in respect of the distribution of effective velocities in the West Turkmenian Depression are discussed. The analysis of experimental data revealed a monotonous increase of effective velocities at greater depths, which is probably due to the gravitational consolidation of the strong Kainozoic stratum. The regional plan shows an increase in effective velocities from west to east and from south to north, corresponding to the weakening of Kainozoic and the increase in more compact Mesozoic formations. At the same time there is an apparent linear dependence between effective velocities and the density of strata, i.e., higher effective velocities generally correspond to more compact strata. Finally, the presence of gas and/or oil deposits in multi-stage strata may result

Card 1/3

in considerable absorption of the elastic pulse and consequently in marked decrease of effective velocities. Effective velocities were determined either by the selective method or on the basis of theoretical hodographs compiled by Yu.V. Riznichenko. Graphs were compared in accordance with the tectonic division established by Yu.N. Godin and the tectonic structure plan of Neogenic deposits. Effective velocity charts were compiled according to dependences of $V_{eff} = f(t)$ and $V_{eff} = f(H)$ at values of t = 1.0, 1.5, 2.0, 2.5 sec and H = 1,000, 2,000 and 3,000 m. The effective velocity charts confirm the information of structure charts, i.e., maximum velocities recorded in the anticline of the fold, minimum in syncline depressions. Highest velocities were recorded at the foothills of Kuba-Dag, Bol'shoy and Maly Balkhan and in parts of the Western Kopet-Dag. Lowest velocities were established in the lowest central region of the Transcaspian Depression. There is as yet no explanation for the anomaly of the V_{eff} observed in the Aladagskaya Fold. The analysis of listed data indicates a direct connection between values V_{eff} and the geological formation of the investigated area. In these particular cases, values V_{eff} were influenced by: tectonic formation, condition and geotectonic development of stages, lithological composition of strata, consolidation and the stratigraphic age. Frequently V_{eff}

Distribution of effective velocities ...

is considerably influenced by crushed zones or oil/gas saturation leading to a local minimum of effective velocities. There are 4 figures.

ASSOCIATION: Upravleniye geologii i okhrany nedr pri Sovete Ministrov Turkmenskoy SSR (Administration of Geology and Protection of Mineral Resources in the Council of Ministers of Turkmenskaya SSR)

SUBMITTED: March 1, 1960

Card 3/3

VOZHZHOVA, N.N.

Method of differentiating the geological section of Tertiary strata in southwestern Turkmenistan by the β parameter. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.1:77-79 '61.
(MIRA 14:8)

1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov Turkmenskoy SSR.
(Seismic prospecting)

L 20642-66 EWT(l)/EWT(m)/EWP(w)/EPF(n)-2/T/EWP(t) IJP(c) JD/WH/JG/GG

ACC NR: AP6010405 SOURCE CODE: UR/0126/66/021/003/0388/0395

AUTHOR: Sudareva, S. V.; Buynov, N. N.; Vozilkin, V. A.; Romanov, Ye. P.; Rakin, V.G.

ORG: Institute of Metal Physics, AN UkrSSR (Institut fiziki metallov AN UkrSSR) 38 B

TITLE: The relationship between the characteristics of superconductivity and structure of zirconium-4% niobium alloy

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 3, 1966, 388-395

TOPIC TAGS: zirconium alloy, niobium containing alloy, alloy structure, alloy superconductivity

ABSTRACT: Zirconium-base alloy containing 4% niobium melted from 99.8%-pure zirconium and 99.4%-pure niobium, rolled at 600—700C into bars, homogenized at 1280C for 50 hr, annealed at 1200C and water quenched, aged at 550C for up to 1000 min, and rolled at 550C with a reduction of 93% was tested for the effect of structure on the characteristics of superconductivity. It was found that alloy annealed at 1200C is not superconductive at 4.2K. Aging of annealed alloy at 550C for 15 min brings about a precipitation of the finely dispersed β-phase and the alloy becomes superconductive with a critical current density of 5000 amp/cm^2. The β-phase particles precipitate mainly at the boundaries of the martensitic needles and form a system of superconductive fibers in the nonsuperconductive matrix. Such a structure appears to have a favorable effect on the magnitude of the critical current density. Prolonged aging of annealed alloy has no additional effect on the critical current

Card 1/2 UDC: 537.312.62:548.4

L 20642-66

ACC NR: AP6010405 0

density. Alloy which, after annealing, was rolled at 550C also became superconductive after aging at 550C for 3 hr, but its critical current density was found to be 50,000 amp/cm^2 (one order higher than that of alloy aged without rolling). The structure of alloy in this condition is distinguished by a network of dislocations decorated by rather large (50—100 Å) particles of β-phase and forming a system of superconducting fibers. Such a structure appears to be a specific feature of all niobium-zirconium alloys with high values of critical current density. Orig. art. has: 4 figures. [DV]

SUB CODE: 20, 11/ SUBM DATE: 05Jul65/ ORIG REF: 004/ OTH REF: 008/ ATD PRESS: 4226

Card 2/2 BK

VOZILLO, A.A.

Use of exercise therapy in compound treatment of silicosis in a sanatorium. Vop. kur., fizioter. i lech. fiz. kul't. 29 no.2: 126-130 Mr-Ap '64 (MIRA 18:2)

1. Kafedra gospital'noy terapii (zav. - prof. P.A. Yanuitskiy) Permskogo meditsinskogo instituta.

VOZILLS, A.A.

Functional interrelation between the tonus of the skeletal musculature and arterial pressure. Eksp. issl. po fiziol. biokhim. i farm. no.3:27-39 '61 (MIRA 16:12)

1. Permskiy meditsinskiy institut.

VOZILLO, A. A.

Cand Med Sci - (diss) "Use of medical physical culture in the complete treatment of patients with silicosis under sanatorium conditions." Moscow, 1961. 16 pp; (Ministry of Public Health USSR, Central Scientific Research Inst of Health Resort Practice and Physiotherapy); 200 copies; price not given; (KL, 6-61 sup, 237)

CA VOZILLO, N. A.

11 B

Experimental use of spectrographic analysis of blood in silicosis diagnosis. V. V. Gerbst and N. A. Vazillo (Regional Hosp., Ust-Kamenogorsk). *Klin. Med. (U.S.S.R.)* 29, No. 4, 88-89(1951).—Detn. of Si is readily achieved with a 2881.6 A. line of Si although a 2516 A. line can be used also. The course of therapy can be readily followed in this way, with gradual and significant decline of blood Si during treatment. In some cases as much as 4.3 mg. % Si was found in the patient's blood in severe silicosis.

G. M. Kosolapoff

GERBST, V.V.; VOZILLO, N.A.

Result of application of spectrographic blood analysis in the diagnosis of silicosis. Klin.med., Moskva 29 no.4:58-60 Apr 1951. (CIML 20:9)

1. Of the Therapeutic Division (Head--Prof. V.V. Gerbst), Ust'-Kamenogorsk Oblast Hospital, and of the Laboratory of Spectral Analysis (Head--Junior Scientific Worker N.A. Vazillo), Scientific-Research Mining Institute (Head--Candidate Geological Studies Zh.A. Aytaliyev) of the Academy of Sciences Kazakh SSR.

ABRAMOVA, V.F.; VOZILOV, I.K.

Study of the mineral tanning agent from the copperas subzone of oxidized ores in iron-pyrite deposits. Trudy Khim.inst.Kir.FAN SSSR no.4:79-81 '51. (MLRA 8:1)

(Tannins) (Iron ores)

V02120, I.K.

Mineral tanning agents from the vitriolic zone of the oxidized ores of pondlandite formation. V. F. Abramova and I. K. Vozilov. *Trudy Khim. Inst., Kirgiz. Filial Akad. Nauk S.S.S.R.* No. 4, 79–84(1951).—The vitriolic deposits contg. various sulfates of Fe, Al, K, and Na are used as tanning agents. Leather tanned with such sulfates alone has good properties but not good appearance. The addn. of chromic compds. and sulfite-pulp give satisfactory results. For successful operation, the vitriolic deposits must contain at least 5.8% of Fe_2O_3 and 4.6% of Al_2O_3. The use of such deposits for leather tanning results in economy of chromic compds. and org. tanning agents and omits the use of H_2SO_4. The time of operation is also reduced to 3 days.

Paul V. Feng

(1)

POLEVOY, V.V.; KOBYL'SKIY, G.I.; VOZILOVA, L.D.

Effect of auxins on the synthesis of nucleic acids in the segments of corn coleoptiles. Dokl. AN SSSR 165 no.3:708-710 N '65.
(MIRA 18:11)

1. Vostochno-Sibirskiy biologicheskiy institut Sibirskogo otdeleniya AN SSSR. Submitted January 20, 1965.

VOZIN, V.F., otv. red.

[Paleontology and biostratigraphy of Paleozoic and Triassic deposits in Yakutia] Paleontologiia i biostratigrafiia paleozoiskikh i triasovykh otlozhenii IAkutii. Moskva, Nauka, 1965. 120 p. (MIRA 18:9)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geologii.

VOZIN, V.M.; LEZHOYEV, V.K.

Stratigraphic association of certain genera Lamellibranchiata of the Norian stage in the Adycha Valley. Nauch.soob. IAFAN SSSR no.2:24-28 '59. (MIRA 14:3)

(Adycha Valley--Lamellibranchiata, Fossil)

VOZIN, Valentin Fedorovich; KASHIRTSEV, A.S., otv.red.; GALUSHKO, Ya.A., red. izd-va; ASTAF'YEVA, G.A., tekhn.red.; GUS'KOVA, O.M., tekhn.red.

[Stratigraphy of Mesozoic sediments in the Yana basin] Stratigrafiia mezozoiskikh otlozhenii basseina r. IAny. Moskva, Izd-vo Akad. nauk SSSR, 1962. 117 p. (Akademiia nauk SSSR. IAkutskii filial, Yakutsk. Trudy. Seriia geologicheskaia, no.15) (MIRA 16:3)
(Yana Valley--Geology, Stratigraphic)

VOZIN, V.F.

Fauna finds of the Anisic stage in the Derbeke-Nel'gekhs interfluvial area. Nauch. soob. IAFAN SSSR no.1:20-22 '58. (MIRA 17:1)

VOZIN, Valentin Fedorovich; TIKHOMIROVA, Vera Vasil'yevna; POPOV, Yu.N., otv. red.

[Field atlas of Triassic bivalved and cephalopod mollusks in the northeastern part of the U.S.S.R.] Polevoi atlas dvukhstvorchatykh i golovonogikh molliuskov triasovykh otlozhenii Severo-Vostoka SSSR. Moskva, Nauka, 1964. 195 p. (MIRA 17:8)

VIKHERT, A.V.; VOZLIN, V.F.; IVENSEN, Yu.P.; KASHIRTSEV, A.S.; PROSHCHENKO, Ye.G.; CHEPIKOVA, I.M., red.izd-va; GUS'KOVA, O.M., tekhn.red.; MAKAGONOVA, I.A., tekhn.red.

[Geology and ore potential of the western Verkhoyansk Range] Geologicheskoe stroenie i rudonosnost' Zapadnogo Verkhoian'ia. Moskva, Izd-vo Akad.nauk SSSR, 1961. 210 p. (Akademiia nauk SSSR. IAkutskii filial, Yakutsk. Trudy, no.5). (MIRA 15:2)
(Verkhoyansk Range--Geology)
(Verkhoyansk Range--Ore deposits)

VOZIN, V.F.

Distribution of some species of Halobia Bronn. and Sirenites Mojs. in the Carnic stage of the northeastern U.S.S.R. Izv. Sib. otd. otd. AN SSSR Geol. i geofiz. no. 1:105-108 '58. (MIRA 14:5)

1. Yakutskiy filial AN SSSR.
(Russia, Northern—Paleontology)

VOZINSKIY, Yu. V. PA 37/49T101

USSR/Metals Oct 48
Cast Iron
Bronze

"Study of the Antifrictional Properties of TS-1 Cast Iron, OF-10-1 and OTeS-6-6-3 Bronzes," Yu. V. Vozinskiy, D. M. Shwartz, Engineers, 2 3/4 pp

"Stanki i Instrument" No 10

Describes specimens, including photographs of microstructure. Tabulates and plots results. Data on wear agrees with previous papers. Discusses effect of loading and hardness. Includes five photographs, sketch, three graphs, and three tables.

37/49T101

VOZISOV, A.F.; LAPP, V.N.; DUBROVSKAYA, L.Ya.

Effect of gelatin on a cathodic polarization change in the process of copper electrodeposition. Zhur.prikl.khim. 34 no.8:1814-1819 Ag '61. (MIRA 14:8)

1. Institut Unipromed'.
(Copper plating) (Gelatin)

LOSHKAREV, A.G.; VOZISOV, A.F.

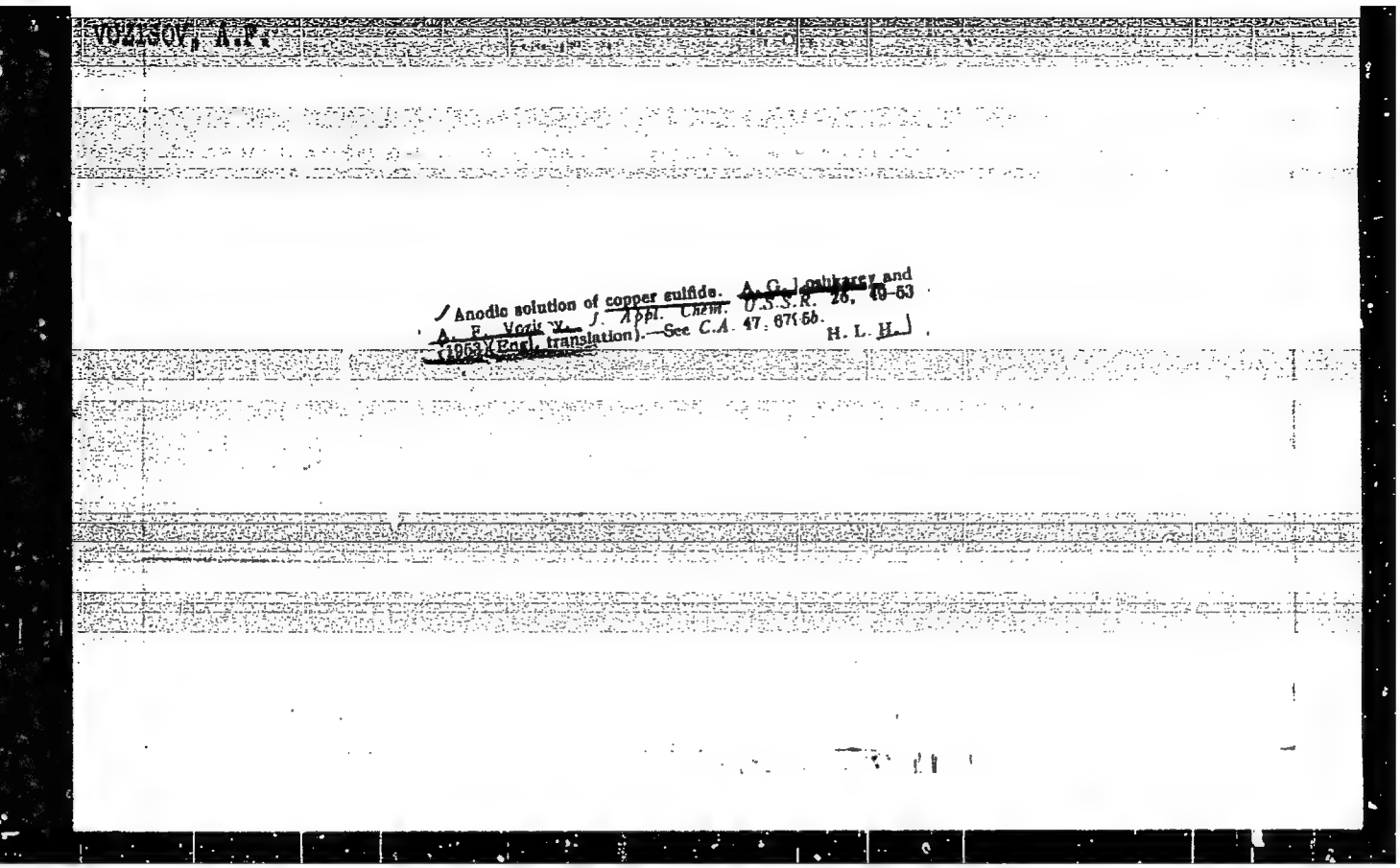
Anodic solution of copper sulfide. Zhur.Prikład.Khim. 26, 55-62 '53. (CA 47 no.14:6795 '53) (MLRA 6:2)

LOSHKAREV, A. G.; VOZISOV, A. F.

Electrolysis

Anodic solution of copper sulfide, Zhur. prikl. khim. 26, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.



VOZISOV, A.F.

Anodic solution of copper sulfide. A. G. [illegible] and A. F. Vozii. J. Appl. Chem. U.S.S.R. 26, 49-53 (1953) (Engl. translation).—See C.A. 47, 6716b. H. L. H.

ACC NR: AP7003295 (N) SOURCE CODE: UR/0177/66/000/012/0074/0075

AUTHOR: Bratanchuk, B. F. (Major; Medical service); Vozisov, I. A. (Major; Medical service)

ORG: none

TITLE: The use of the portable DP-2 apparatus for mass oxygen inhalation

SOURCE: Voyenno-meditsinskiy zhurnal, no. 12, 1966, 74-75

TOPIC TAGS: biologic metabolism, hyperoxia, clinical medicine, ~~oxygen inhalation, oxygen mask~~, OXYGEN CONSUMPTION, MEDICAL EQUIPMENT

ABSTRACT: The portable DP-2 apparatus has been suggested for mass oxygen inhalation. The equipment is built with one-cm rubber tubes, three-inch plastic tubes, oxygen funnel inhalers, and polyvinyl chloride or transparent oilskin sacks. The design of the system is shown in Fig. 1.

Card 1/3 UDC: 615.473:615.777.4

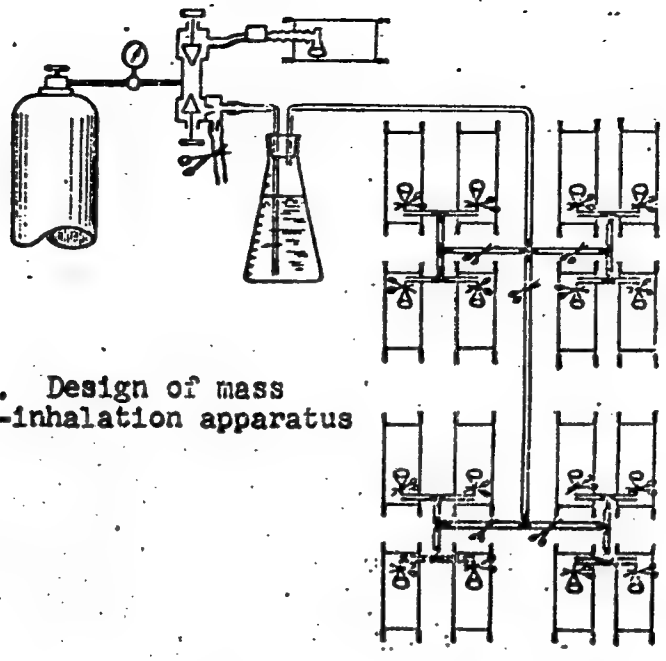


Fig. 1. Design of mass oxygen-inhalation apparatus

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001961210001-0"

ACC NR: AP7003295

The volume of oxygen conveyed per min relative to the number of inhalers can be calculated according to the formula $\frac{V_{O_2}}{t_{cek}}$ to be: 2 inhalers→4 ℓ; 4 inhalers→8 ℓ; 6 inhalers→12 ℓ; 8 inhalers→16 ℓ; 10 inhalers→ 20 ℓ; 12 inhalers→24 ℓ; 14 inhalers→28 ℓ; 16 inhalers→32 ℓ. Pure oxygen is fed into the system through a rubber tube attached to the nozzle of the injector; at the same time a short rubber tube on the filtering nozzle of the apparatus is cut off by a clamp. To create an oxygen-air mixture, the intake nozzle of the aspirator is kept open so that atmospheric air is drawn in. Oxygen content varies from 35--60% depending on the intake rate. The valve is gaged for intake of the oxygen mixture by a similar method. The amount of oxygen or oxygen-air mixture necessary is calculated relative to the number of inhalers. An advantage of the system is that it may be used on the battlefield when there are insufficient standard oxygen inhalation stations. It is also recommended for hospitals for educational and practical purposes.

[VA-N67-2]
[SC]

SUB CODE: 06/ SUBM DATE: none

Card 3/3

VOZISOVA, V.F.; PODCHAYNOVA, V.N.

Spectrophotometric study of a compound of germanium with N,N'-di-(2-hydroxy-5-sulfophenyl)-cyanophormazan. Zhur. anal. khim. 19 no.5:640-642 '64. (MIRA 17:8)

1. Ural'skiy politekhnicheskiy institut imeni Kirova, Sverdlovsk.

AUTHORS: Tananayev, N. A., Vozisova, V. F. SOV/156-58-3-19/52

TITLE: On the Problem of the Application of the Calculation Formula to the Production of Buffer Solutions (K voprosu o primenenii raschetnykh formul dlya prigotovleniya bufernykh rastvorov)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp. 482 - 485 (USSR)

ABSTRACT: An experimental checking of the formula

$$p_H = p_K - \lg \frac{C_{acid}}{C_{salt}}$$

was carried out by means of phosphate and acetate buffer solutions. The experimental results obtained showed that the application of this calculation formula to the production of phosphate and acetate buffer solutions is possible. The method for the production of buffer solutions employing the above mentioned formula is very simple. The deviation between the p_H value, calculated according to the mentioned formula, and the experimentally found value is not more than 0,1 p_H. The most exact results are obtained for p_H values when

Card 1/2

On the Problem of the Application of the Calculation Formula to the Production of Buffer Solutions

SOV/156-58-3-19/52

the buffer solution consists of the same concentration of acids and salts (1 : 1, or approximately 1 : 1). By using this formula it is possible to considerably simplify the method for the production of buffer solutions. There are 2 tables and 10 references, 7 of which are Soviet.

ASSOCIATION: Kafedra analiticheskoy khimii Ural'skogo politekhnicheskogo institut. im.S.M.Kirova (Chair of Analytical Chemistry at the Ural Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: February 20, 1958

Card 2/2

Effect of gas evolution from the spaces where coal mining is finished on the composition of the air current that ventilates the coal mines. O. F. Yuzivanov. *Dopovidi Akad. Nauk Ukr. R.S.R.* 1957, No. 3, 278-82(Russian summary 82).—Analyses showed that if two seams converge the CH_4 content in the air space in the upper seam can reach 75–80%. If such air pockets are connected to the mine air stream, explosions can occur where the roadbed comes into contact with such stream, as there the CH_4 concns will be 7–11%.

Werner Jacobson

VOZIYANOV, A.F.

Creating a system for ventilating a section with controlled leaks. Sbor. trud. Inst. gor. dela AN URSR no.7:149-154 '61. (MIRA 15:1)

(Mine ventilation)

VOZIYANOV, A.F., Cand Tech Sci — (diss) "Study of the structure of ventilation stream ~~current~~ on steeply sloping intensive gas strata of the Donbass." Stalino, 1959, 21 pp with illustrations (Min of Higher Education UkSSR. Dnepropetrovsk Order of of Labor Red Banner Mining Inst im Artem) 150 copies (KL, 28-59, 126)

VOZIYANOV, A.F.

Effect of gas evolution from the worked-out space on the structure of the airstream [with summaries in Russian and English]. Dop. AN URSR no.3:278-282 '57. (MLRA 10:9)

1. Institut girnichnoi spravi Akademii nauk URSR. Predstavleno akademikom Akademii nauk USSR V.S.Pakom.
(Mine gases)

VOZIYANOV, A.F., gornyy inzh.

Using motion picture photography to study the mine ventilation process. Ugol' Ukr. 3 no.3:26-28 Mr '59.
(MIRA 12:5)

(Mine ventilation)
(Motion picture photography)

VOZIYANOV, A.F., gornyy inzh.

Structure of the air current in a steep pitching longwall.
Ugol' Ukr. 2 no.12:15-17 D '58. (MIRA 12:1)
(Mine ventilation)

VOZIYANOV, A.F.

10.1500

26858
S/021/60/000/008/007/011
D210/D305

AUTHORS: [redacted]oyanov, O.F., and Braynin, M.Y.

TITLE: Theoretical grounds of the spark method of stream visualization

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 8, 1960, 1059 - 1063

TEXT: The aim of the paper is to show that the spark method of visualization of air currents is under certain conditions sufficiently accurate for practical purposes. By the known Stokes formula a burning particle falls down with a velocity

$$v_n = 2/9 \frac{r^2 \gamma}{\mu} \qquad (1)$$

which is of 0.2 m/sec order. But if the hot air itself moves up with a velocity approaching 0.2 m/sec then the particle is at rest

Card 1/5

Theoretical grounds of the ...

relative to the cold air. The author considers two cases: 1) The possibility of soaring of burning particles in the cold air. The equations of motion and conductivity are presented in

$$\rho \frac{dV}{dt} = (\rho_0 - \rho)g \quad (3), \qquad \frac{dT}{dt} = D\frac{d^2T}{dz^2} \quad (4)$$

$$\text{and} \quad \frac{\rho_0}{\rho} = \frac{T}{T_0} \quad (5)$$

with boundary condition for $-\infty < z < a$

$$z = -a \quad T = T_{air}, \quad (6)$$

$$z = -\infty \quad T = T_0, \quad V = 0. \quad (7)$$

Introducing new variables $a = z/z$, $v = V/V$, where $v = D/a$, $\Phi = \vartheta/\vartheta$ where $\Phi = -D^2/a^3 g$, where $\vartheta = T/T_0 - 1$ and rewriting the equations

Card 2/5

Theoretical grounds of the ...

in the new form, the author obtains the solution:

$$\bar{v} = \bar{v}_{air} - 0.4(\bar{z} + 1) \qquad (12)$$

and

$$\bar{V} = \frac{1.6}{\bar{v}_{air}^{-4/3} - 0.4(\bar{z} + 1)} . \qquad (13)$$

The velocity of the particle near to the surface z = - a will be

$$V = 1.6 \sqrt[3]{Dg}_{air} \qquad (14)$$

or V = 0.18 m/sec, i.e. $V \approx V_{air}$; this means that a particle with a diameter 10^{-4} m and burning temperature 600°C will be suspended in air, balanced by convective currents. 2) Centrifugal effect of particles with small diameters. If the particle balanced in a vertical direction has angular velocity with respect to the OY axis, then the central force

$$F_{cf} = - \rho \omega_0^2 \bar{r} \tau ;$$

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Theoretical grounds of the ...

and the air resistance $F_{res} = -6\pi a\mu(\bar{V} - \bar{\omega}_0 \cdot \bar{r})$. By Newton's law it will be therefore $\frac{d\bar{V}}{dt} = \frac{\varrho}{\varrho} - \omega_0^2\bar{r} - \frac{9}{2}\frac{\mu}{\varrho a^2}(\bar{V} - \bar{\omega}_0 \cdot \bar{r})$. Introducing x, y coordinates, and new variables

$$\frac{1}{\omega_0} = \frac{t}{\bar{t}},\ x_0 = \frac{x}{\bar{x}},\ y_0 = \frac{y}{\bar{y}},$$

and

$$\frac{9}{2}\frac{\varrho}{\varrho a} = A_1. \qquad (20)$$

The equations were transferred to

$$\ddot{\bar{x}} + A_1\dot{\bar{x}} + A_1\bar{y} = 0\ (21),\quad \ddot{\bar{y}} + A_1\dot{\bar{y}} - A_1\bar{x} = 0 \qquad (22)$$

with boundary condition $\bar{x} = 1$, $\dot{\bar{x}} = 0$, $\bar{y} = 0$, $\dot{\bar{y}} = 1$ for $t = 0$.
If $A_1 \gg 1$, then $\dot{\bar{x}} + \bar{y} = 0$ and $\dot{\bar{y}} - \bar{x} = 0$, or $\ddot{\bar{x}} + \bar{x} = 0$, and $\ddot{\bar{y}} + \bar{y} =$

Theoretical grounds of the ...

= 0, or $\bar{x} = \cos \bar{t}$ and $\bar{y} = \sin \bar{t}$. This means that the particles move in circles or that the full capture of particles by moving air takes place. There are 3 Soviet-bloc references.

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X

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RUDCHENKO, V.P.; KARPOV, A.M., prof.; VOZIYANOV, A.F., kand.tekhn.nauk.

Possibility of using downward ventilation in the stopes of steeply dipping Donets Basin seams. Ugol' Ukr. 5 no.3:1-4 Mr '61. (MIRA 14:3)

1. Glavnyy inzh.kombinata Stalinugol' (for Rudchenko).
(Donets Basin—Mine ventilation)

VOZIYANOV, A.F.; BUZIN, V.A.; MEL'NIKOV, V.F.; SUSLIN, Yu.V.; GEORGIYEVSKIY, V.S.

Ventilation of shielded working faces in steep seams of the Donets Basin. Trudy Inst.gor.dela AN URSR no.11:53-65 '62. (MIRA 16:2)

(Mine ventilation)

PERRO, V.V.; PROSKURENKO, S.I.; CHUPRINA, G.T.; VOZIYANOV, V.I.

Using the USB-2 at the No.2 "Kontarnaia" Mine. Ugol' Ukr. 7 no.10:25 O '63. (MIRA 17:4)

1. Normativno-issledovatel'skaya stantsiya kombinata Artemugol'.

VOZIYANOVA, Z.A., tekhnik; RUSANOV, I.A., inzh.

Specialists in dicisive coal mining sections. Ugol' prom. no.3:36-38 My-Je '62. (MIRA 18:3)

VOZKA, M.

"Technological Processes for the Whole Branch of Industry", P. 7,
(TECHNICKE NOVINY, Vol. 1, No. 17/18, Dec. 1953, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

JIRA, Vladimir, dr.; BERNARD, Frantisek, dr.; URBANEC, Alfons, dr.; LUHAN, Jaroslav, dr.; VOZKA, Vladimir, dr.; POLASEK, Jan, dr.; PAVLATOVA, Jarmila, dr.; SVATOSOVA, Marie, dr.

Comments on the individual parts of the draft of the Czechoslovak labor code. Prace mzda 11 no.1:15-60 Ja '63 (MIRA 17:8)

1. Pracovne pravni oddeleni, Ustredni rada odboru (for Jira, Bernard, Urbanec, Luhan, Vozka, and Polasek).. 2. Pracovne pravni komise, Ustredni rada odboru (for Pavlatova and Svatosova).